## Orford 40366 – Bridge 217/112 NH Route 25A over Brackett Brook Public Informational Meeting



April 30, 2019





## **Agenda**

- Status
- Project Location
- Existing Conditions
- Natural & Cultural Resources
- Alternatives Analysis
- Construction Cost & Schedule
- Questions & Comments





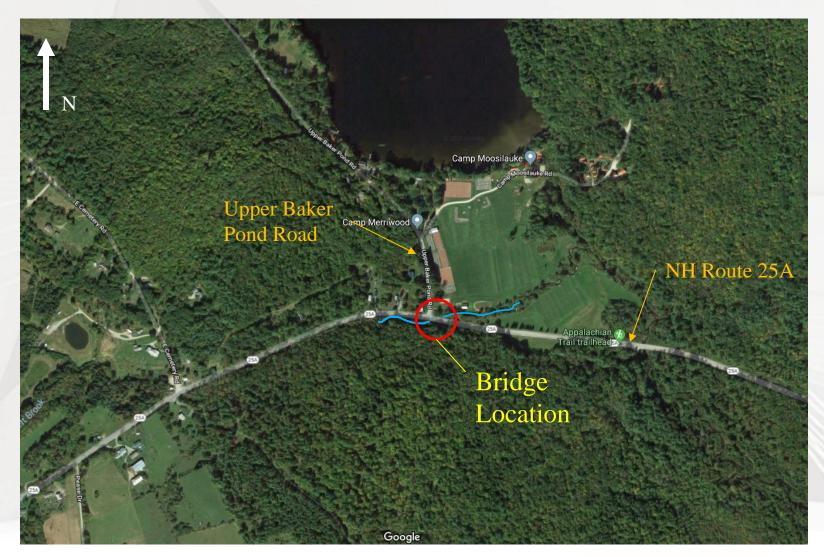
#### **Status**

- Rehabilitation Study
- Draft Type, Size, and Location Study (TS&L)
- Public Officials Meeting
- Public Information Meeting
- TS&L
- Preliminary Plans
- Formal Public Hearing
- Plans, Specifications, and Estimate (PS&E)
- Advertise Project
- Construction





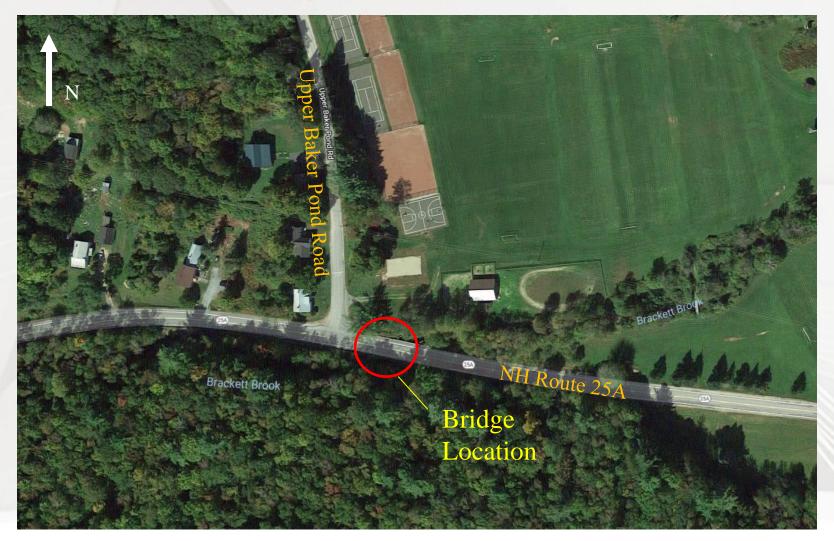
## **Project Location**







## **Project Location**







#### **Site Photos**



NH Route 25A Looking East



**Upstream Elevation** 



**Downstream Elevation** 





## **Existing Bridge**

- 2-span reinforced concrete slab bridge
- Built 1929, widened 1979
- NHDOT inspection report lists superstructure in "poor" condition
- NHDOT Red List since 2013
- Bridge Priority #53 (2018)
- Carries approximately 820 vehicles per day with 7% trucks
- 40 mph posted speed limit
- 54 mph 85<sup>th</sup> percentile speed
- E-2 Bridge Posting





## **Existing Condition**



Downstream



Upstream Wall



Southeast Wingwall





#### **Natural & Cultural Resources**

- Brackett Brook
  - "Tier 3" stream crossing
  - Major impact NHDES permit
  - Outstanding Resource Water
- Historic resources
  - Bridge determined not eligible for NR
  - Camp Merriwood
    - Potential historic resource





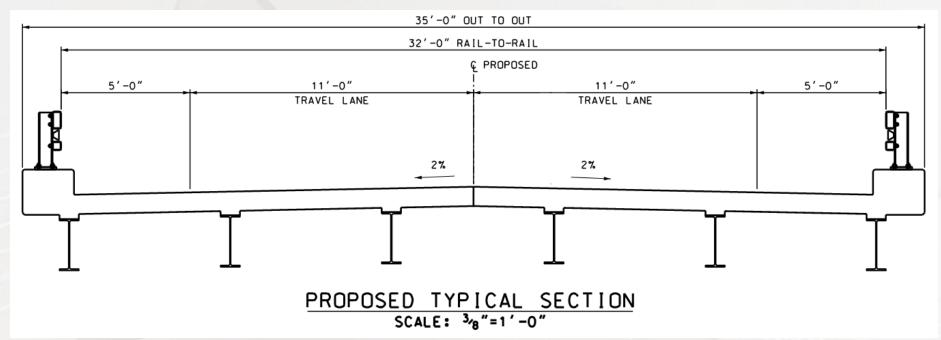
## **Alternatives Analysis**

- Rehabilitation (not feasible)
  - Bridge condition & flooding concerns
- Replacement Options
  - Phased Construction (Preferred Option by Selectboard)
  - Accelerated Bridge Construction (ABC) with road closure





## Replacement Bridge



- Single span
- Steel girders with a concrete deck





#### **Phased Construction**

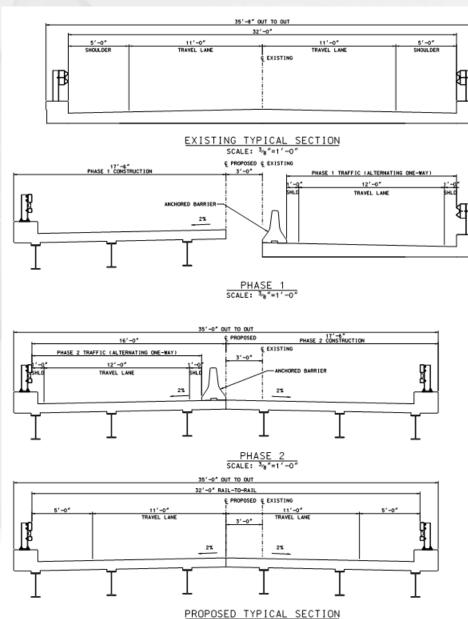
- Construct one half of bridge at a time
- Maintain one lane alternating traffic on NH Route 25A
- Permanent shift of road slightly to the north, towards Upper Baker Pond Road and the Camps
- Increases Right-of-Way (ROW) impacts
- Longer construction duration (~ 7 months)





#### **Phased Construction**

North (Camps Side)



SCALE: 3/8"=1'-0"





#### **Phased Construction**

#### **Advantages**

No road closure

#### **Disadvantages**

- Longer construction disruption
- Increased ROW impacts
- Less desirable traffic conditions due to speed and steep grade to the west
- Additional construction cost





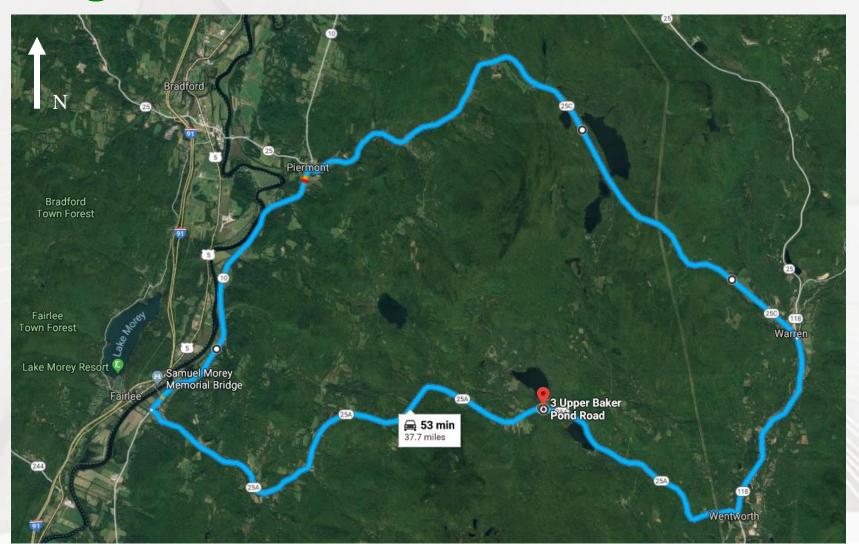
# Accelerated Bridge Construction (ABC)

- 2 month closure using Accelerated Bridge Construction
- Signed detour (state routes) about 38 miles
- Local detour about 15 miles
  - Approximately 13 additional miles to NH Route
     10
  - Approximately 16 additional miles to NH Route
     25
- Camps have roadway/drive access to NH Route 25A on each side of bridge





## **Signed Detour**







## Accelerated Bridge Construction Advantages

- Minimizes ROW impacts
- Minimizes environmental impacts
- Safer
- Least amount of total construction disruption
- Lower Construction cost than Phased Construction

#### **Disadvantages**

Road closure





### **Decision Matrix**

|                       | ABC   | Phased Construction                             |
|-----------------------|---|---|
| Construction Duration | 2 months  | One construction season (7 months)              |
| Detour                | All Vehicles  | None  |
| Property Impacts      | Minor ROW   | Additional ROW for shifted alignment (3' north) |
| Community Impacts     | Emergency response impacted No bus routes impacted (summer closure) | Emergency response impacted Bus routes impacted |
| Cost                  | \$2.1m  | \$2.2m  |

Selectboard recommended Phased Construction





## **Next Steps**

- Develop and Evaluate Bridge Alternatives
- Complete NEPA Process (National Environmental Policy Act) for Environmental Clearances
- Develop Preliminary Plans
- Public Hearing
- Develop ROW Plans
- Acquire ROW
- Develop Contract Plans and Documents
- Construction Starts in 2021





## **Project Schedule & Estimate**

- TS&L May 2019
- Preliminary Plans Summer 2019
- Formal Public Hearing Fall 2019
- PS&E 2019/2020
- Advertise Project 2020
- Construction 2021

Estimated Construction Cost - \$2.2 million





#### **Questions/Comments**



## **Thank You For Attending**





## Your Input Is Needed

- > Emergency response routes
- Mutual aid to/from adjacent towns
- > School bus routes
- > History of flooding
- Bridge construction timing
- ➤ Interaction with camps Moosilauke & Merriwood
- > Other concerns



